

CLAIMS:

What is claimed is:

1. A method for efficiently integrating wireless and wireline functions within a communications network, comprising the steps of:

- integrating an asynchronous transfer mode infrastructure with said communications network; and
- linking said wireless and wireline functions to and from said communications network via said asynchronous transfer mode infrastructure utilizing a network access function within a network edge switch.

2. The method of claim 1, further comprising the step of transmitting wireless and wireline data to said network access function to allow wireless and wireline data to flow to and from said communications network.

3. The method of claim 1, further comprising:

- utilizing multiple functions within said network access function for consolidating and interfacing signal traffic to and from said communications network.

4. The method of claim 3, further comprising:

- converting said received wireless and wireline data from a first communications protocol to a second communications protocol within said network access function.

5. The method of claim 4, further comprising:

- transferring said wireless and wireline data to said asynchronous transfer mode infrastructure from said network access function.

1 6. The method of claim 4, wherein the step of integrating
2 an asynchronous transfer mode infrastructure with said
3 communications network, further comprises:

4 integrating an asynchronous transfer mode
5 infrastructure with said communications network, wherein
6 said asynchronous transfer mode infrastructure comprises
7 an asynchronous transfer mode fabric interfaced with an
8 asynchronous transfer mode gateway.

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1 7. A system for efficiently integrating wireless and
 2 wireline functions within a communications network,
 3 comprising:
 4 said communications network;
 5 an asynchronous transfer mode infrastructure for
 6 transmitting signals within said communications network;
 7 a network edge switch for linking said wireless and
 8 wireline functions to and from said communications network
 9 via said asynchronous transfer mode infrastructure
 10 utilizing a network access function within said network
 11 edge switch.

1 8. The system of claim 7, further comprising:
 2 transmitting means for transmitting wireless and
 3 wireline data to said network access function to allow
 4 wireless and wireline data to flow to and from said
 5 communications network.

1 9. The system of claim 7, further comprising:
 2 multiple functions within said network access function
 3 for consolidating and interfacing signal traffic to and
 4 from said communications network.

1 10. The system of claim 9, further comprising:
 2 conversion functions within said network access
 3 function for converting said received wireless and
 4 wireline data from a first communications protocol to a
 5 second communications protocol.

1 11. The system of claim 9, further comprising:
 2 transferring said wireless and wireline data to said
 3 asynchronous transfer mode infrastructure from said
 4 network access function.

12. The system of claim 9, wherein integrating an asynchronous transfer mode infrastructure with said communications network, further comprises:

integrating an asynchronous transfer mode infrastructure with said communications network, wherein said asynchronous transfer mode infrastructure comprises an asynchronous transfer mode fabric interfaced with an asynchronous transfer mode gateway.

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13. A program of instructions, within instruction bearing media associated with a telecommunication system for efficiently integrating wireless and wireline functions within a communications network, comprising:

instructions within said instruction bearing media for integrating an asynchronous transfer mode infrastructure with said communications network; and

instructions within said instruction bearing media for linking said wireless and wireline functions to and from said communications network via said asynchronous transfer mode infrastructure utilizing a network access function within a network edge switch.

14. The program of instructions of claim 13, further comprising:

instructions within said instruction bearing media for transmitting wireless and wireline data to said network access function to allow wireless and wireline data to flow to and from said communications network.

15. The program of instructions of claim 13, further comprising:

instructions within said instruction bearing media for utilizing multiple functions within said network access function for consolidating and interfacing signal traffic to and from said communications network.

16. The program of instructions of claim 15, further comprising:

instructions within said instruction bearing media for converting said received wireless and wireline data from a first communications protocol to a second communications protocol within said network access function.

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1 17. The program of instructions of claim 15, further
2 comprising:

3 instructions within said instruction bearing media for
4 transferring said wireless and wireline data to said
5 asynchronous transfer mode infrastructure from said
6 network access function.

1 18. The program of instructions of claim 13, wherein
2 instructions for integrating an asynchronous transfer mode
3 infrastructure with said communications network, further
4 comprises:

5 instructions within said instruction bearing media for
6 integrating an asynchronous transfer mode infrastructure
with said communications network, wherein said
asynchronous transfer mode infrastructure comprises an
asynchronous transfer mode fabric interfaced with an
asynchronous transfer mode gateway.

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